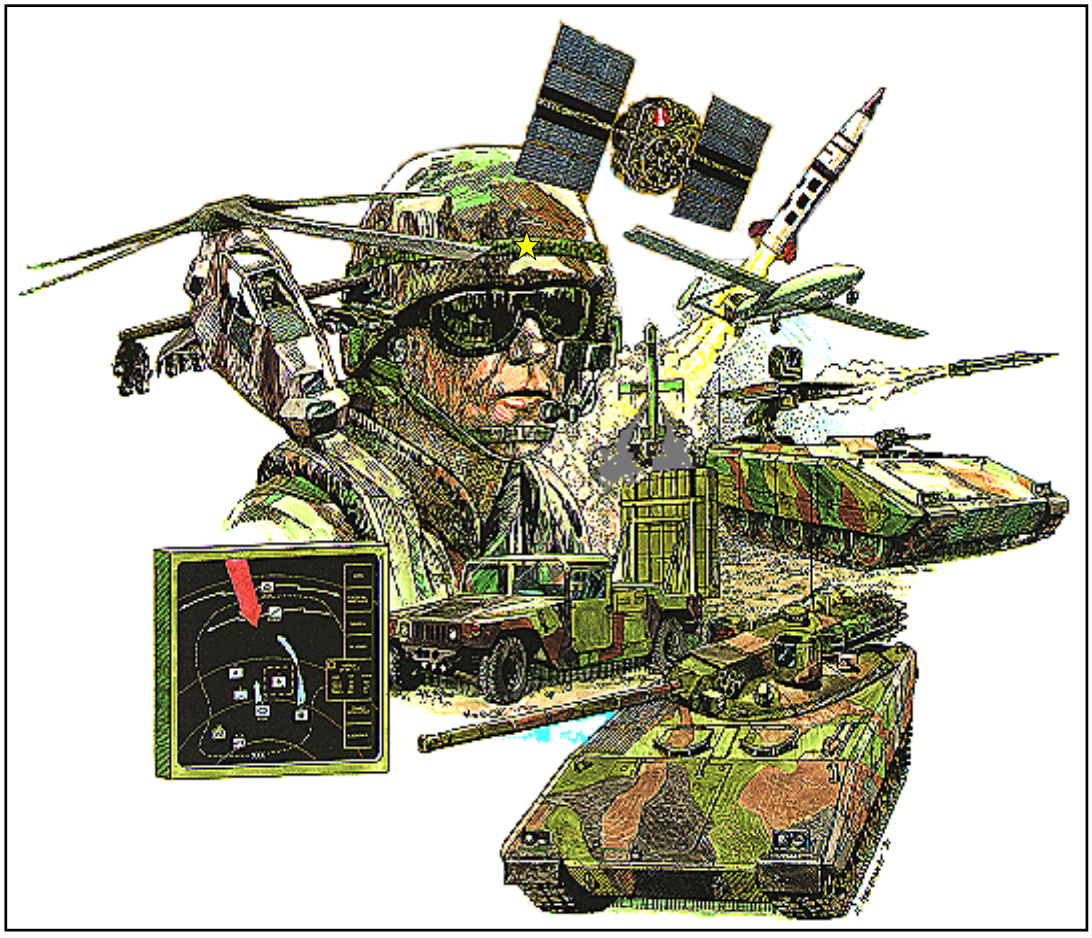
TOTAL ARMY ANALYSIS



Primer 2003

Total Army Analysis (TAA)

"TAA is the Army's biennial, rigorous analytical process…has undergone reviews from GAO and received positive comments on analytical rigor…"
CSA in Testimony to HASC, 27 June 2002

I. Force Development Process

1. Force development is the start point, rationale and underlying basis for defining the Army's force structure. The Force Development Process consists of defining military capabilities, designing force structures to provide these capabilities, and translating organizational concepts based on doctrine, technologies, materiel, manpower requirements, and limited resources into a trained and ready Army. The five phases are:

- **a.** Generate Requirements
- **b.** Design Organizations
- **c.** Develop Organizational Models
- **d.** Determine Organizational Authorizations
- **e.** Document Organizational Authorizations

2. The five phases of the force development process are displayed in the chart (**figure 1**). This model reflects a sequence of events and how these functions relate to each other. The resulting products of force development provide the basis for acquiring and distributing materiel and acquiring, training, and distributing personnel in the Army. It is useful to use the Army Force Development Process to visualize how each step relates to the other steps and contributes to the accomplishment of each task.

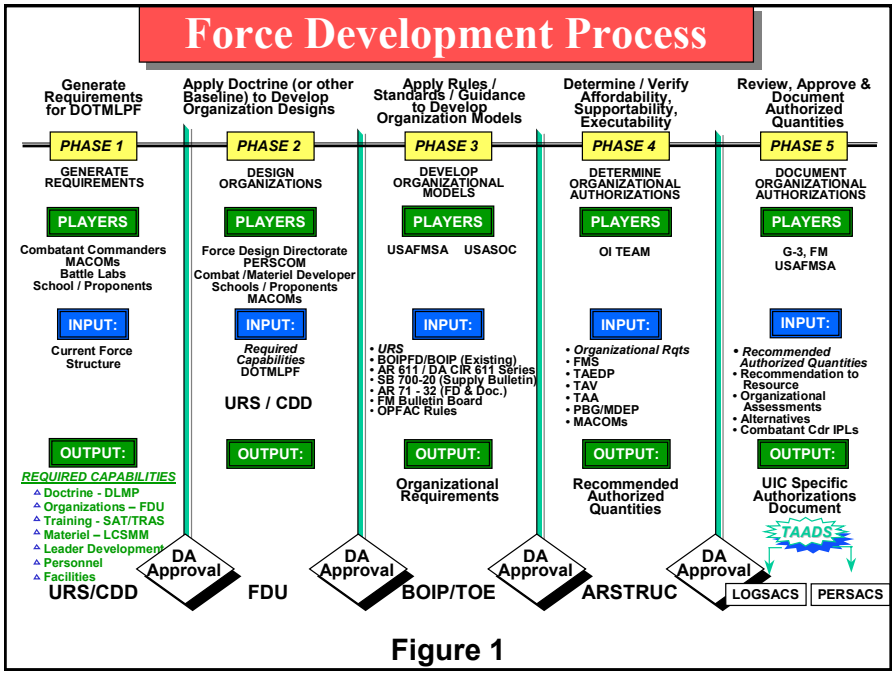


Figure 1

Acronym list:

ARSTRUC: Army Structure Message
BOIP: Basis of Issue Plan
BOIPFD: BOIP Feeder Data
CDD: Capabilities Development Document
DLMP : Doctrine and Literature Master Plan
FDU: Force Design Update
FMS: Force Management System
G-3, FM: Force Management
IPL: Integrated Priority List
LOGSACS: Logistics SAC
MACOM: Major Command
MDEP: Management Decision Package
OI: Organization Integrator
OPFAC: Operational Facilities
PBG: Program Budget Guidance
PERSACS: Personnel SACS
PERSCOM: Personnel Command
SACS: Structure and Composition System
SAT: Systems Approach to Training
TAA: Total Army Analysis
TAADS: The Army Authorization Documentation System
TAEDP: Total Army Equipment Distribution Plan
TAV: Total Asset Visibility
TOE: Table of Organization and Equipment
TRAS: Training Requirements Analysis System
UIC: Unit Identification Code
URS: Unit Reference Sheet
USAFMSA: Unite States Army Force Management Support Agency
USASOC: U.S. Army Special Operations Command

a. Generate requirements. The force development process has its roots in the requirements generation system (RGS). A separate primer discussing the RGS can be found on the Army Force Management School web site: www.afms1.army.mil . The RGS identifies the desired operational capability in terms of personnel, equipment, and unit structure. This process begins with national-level guidance (National Security Strategy (NSS), National Military Strategy (NMS), Quadrennial Defense Review (QDR), Joint Vision (JV), and Defense Planning Guidance (DPG)), guidance from the Army's senior leadership (Army Vision, The Army Plan (TAP)), joint warfighting concepts (such as rapid decisive operations, peace enforcement operations), and/or new materiel capabilities evolving from the research, development, and acquisition (RDA) process. U.S. Army Training and Doctrine Command (TRADOC) assess the future warfighting concepts through a series of analyses, tests, experiments and studies to gain insights across DOTMLPF domains. Using the integrated concept team (ICT) management technique, TRADOC pursues timely involvement of appropriate agencies/expertise to aggressively identify and work issues. TRADOC establishes force operating capabilities (FOCs) as the foundation upon which to base the assessment process. These critical, force-level, measurable statements of operational capability frame how the Army will realize advanced full spectrum operations as stated in the approved capstone concept. The FOCs focus the Army's Science and Technology Master Plan (ASTMP) and warfighting experimentation. As the transformation process unfolds, these force-level objective concepts will give rise to supporting proponent/branch future FOCs included within subordinate concepts. This assessment process leads to a recommendation by the Commanding General (CG), TRADOC to Headquarters, Department of the Army (HQDA) on how to best fulfill the warfighting requirement. If the capability requires a change in doctrine, training, or leader development TRADOC begins action to meet the requirement upon approval of HQDA Deputy Chief of Staff (DCS), G-3. If the analysis results in goes forward a need for change in soldier occupational specialty structure, then the recommendation goes forward to HQDA DCS, G-1 for action. If the required capability needs a materiel solution, TRADOC prepares a material requirements document (MRD) and forwards it to HQDA DCS, G-3 for approval of the requirement through the Army Requirements Oversight Council (AROC) validation/approval process. HQDA DCS, G-8 is responsible for materiel solutions and DOTMLPF integration through out the program life cycle. If the required capability needs an organizational solution, TRADOC prepares a unit reference sheet (URS) forwarding it for HQDA approval. Warfighting concepts requiring organizational solutions move to the next phase of force development.

b. Design organizations. As the organizational conceptual requirements begin to clarify, the force development process begins to design organizations. The combat development community develops the proposed organization, and it's mission and functions, to meet the required operational capabilities. Organizational solutions to FOCs are captured in a URS in sufficient detail to support Army force design initiatives, and related studies and analyses. After the design has been developed, laid out and analyzed by TRADOC, it moves forward to HQDA in the force design update (FDU). Once approved, this design will be further refined into an organizational model known as a table of organization and equipment (TOE).

c. Develop organizational models. U. S. Army Force Management Support Agency (USAFMSA) applies rules, standards, and guidance to the doctrinally correct design to produce the organizational model (TOE). The TOE is a requirements document, and is the definition of a fully mission-capable organization (i.e.; unresourced).

d. Determine organizational authorizations. The Total Army Analysis (TAA) process is used by HQDA to determine organizational authorizations. TAA is discussed in detail in

Sections III through VIII of this primer. TAA develops the total requirements and then the authorizations defining the force structure the Army must build, raise, provision, sustain, maintain, train and resource to meet OSD / Army guidance, combatant commanders' requirements and force structure initiatives. The HQDA approved TOEs compete for authorizations – the coin of the realm in the force structure business – broken out in Officer / Warrant Officer / Enlisted spaces. TAA first determines the total requirements (the number of units, by type – 100% manned and equipped). The TAA process then determines the force **resourcing** levels based on priorities, budgetary constraints and guidance. The resulting force structure is the Program Objective Memorandum (POM) force, the force that is recommended for resourcing to OSD in the Army's POM submission. TAA takes into account force guidance and resource availability to produce a balanced and affordable force structure. It determines and/or verifies the affordability, supportability, and executability of the organizational model.

TAA is the process that takes us from the Army of today to the Army of the future. It requires a **doctrinal basis** and **analysis**; is based upon **strategic guidance** from above the Army; and involves **threat analysis**, **specific scenarios,** and an **Army "constrained"** force.

TAA process has the potential of changing every facet of the Army.

e. Document organizational authorizations. After approval of the resourced force structure by the Army leadership, USAFMSA manages the process of documenting the decision(s). This process results in organizational authorizations documented as modification tables of organization and equipment (MTOE) or tables of distribution and allowance (TDA).

II. TAA – Phase IV of the Force Development Process

The focus of this primer is the fourth phase of the Force Development Process (TAA). This phase, determining organizational authorizations, provides the mix of organizations that comprise a balanced and affordable force structure. Force structuring is an integral part of the OSD Planning, Programming, and Budgeting System (PPBS) and the Joint Staff Joint Strategic Planning System (JSPS). It develops force structure in support of joint, strategic, and operational planning and Army planning, programming and budgeting. The development of a force is based on an understanding of the objectives to be achieved, threats, and the dynamics of internally and externally imposed constraints (i.e.; dollars, end strength, roles, and missions).

The mix of unit models that make up a balanced and affordable force structure must support Joint and Army planning, programming, and budgeting at the strategic, operational and tactical levels.

III. Total Army Analysis (TAA) Overview

1. TAA is the acknowledged and proven mechanism for explaining and defending Army force structure. It takes us from the Army of today to the Army of the future. It requires a doctrinal basis and analysis, flowing from strategic guidance and joint force requirements. TAA is a biennial process initiated during even-numbered years. HQDA, G-3 initiates the formal TAA process upon receipt of OSD/Joint Staff DPG, IPS, and draft TAP. Based on these documents and guidance, the routine TAA cycle occurs. TAA is the basis for the Army's POM development and establishment of the POM Force. The Army develops the POM force to achieve an affordable and competent force capable of best supporting national objectives and Combatant Commanders' warfighting needs. This force supports the joint strategic planning conducted by the Joint Staff, Combatant Commanders and the Services at the transition between planning and programming.

2. TAA determines the total requirements to meet the NMS, DPG, and TAP. TAA resources the requirements based on Army leadership directives, written guidance, risk analysis, and input from the combatant commanders day-to-day requirements. The resulting force structure is the POM force, forwarded to OSD with a recommendation for approval. When Congress approves the budget, all approved units are programmed in the Structure and Manpower Allocation System (SAMAS) and documented in The Army Authorization Document System (TAADS), in phase V of the Force Development Process (**figure 1 above**).

3. The purpose of TAA is to determine the required "operating and generating" forces, necessary to support and sustain the DPG provided "operating force". Echelon above division (EAD) / echelon above corps (EAC) Support Force structure needed to make the divisional and non-divisional force specified in the DPG portion of the "operating force" successful in the MCOs and define the required "generating" forces necessary to support and sustain the "operating forces". The DPG specified combat forces and the EAD/EAC support forces determined during the TAA process are referred to as "operating forces". The determination of the size and content of the Army force structure is an iterative, risk-benefit, trade-off analysis process. The Program Objective Memorandum (POM) force, the force recommended and supported by resource requests in the Army POM, as part of the future years defense program (FYDP), is developed during the TAA process. TAA determines the force for each program year. It has Army wide participation, culminating in CSA decision and SA approval.

a. The TAA **principal products** are the (**figure 2**):

- Army's total warfighting requirements;
- Required support forces (EAD/EAC); and
- Force resourced against requirements and budgetary constraints; and
- Army structure (ARSTRUC) message; and
- Initial POM force.

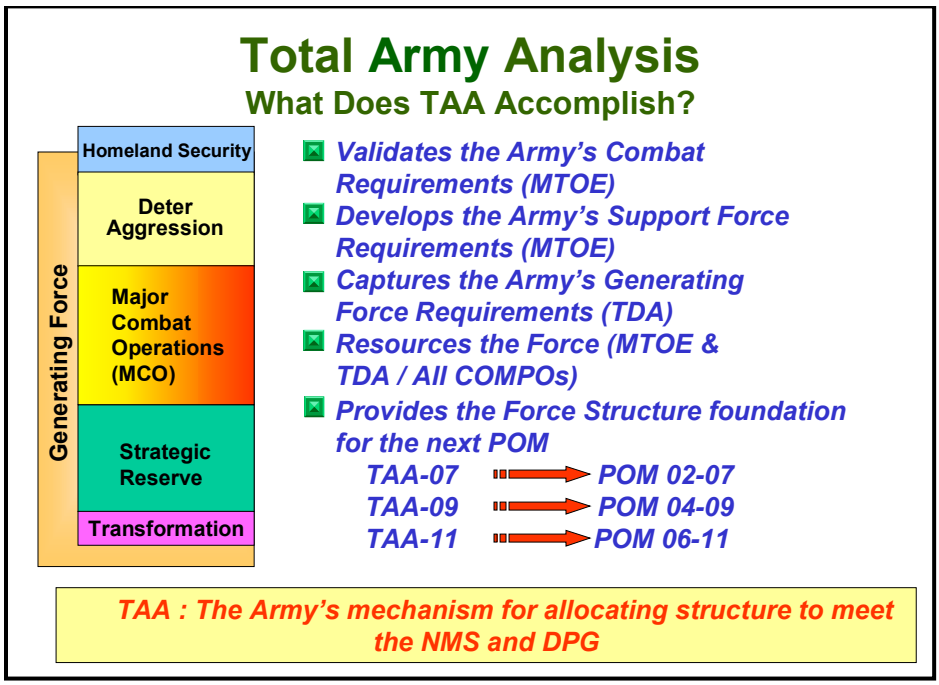


Figure 2

b. TAA **objectives** are to:

- Develop, analyze, determine and justify a POM force, aligned with the DPG and TAP. The POM force is that force projected to be raised, provisioned, sustained, and maintained within resources available during the Future Years Defense Plan (FYDP).
- Provide analytical underpinnings for the POM force for use in dialogue among Congress, OSD, Joint Staff, Combatant Commanders and the Army.
- Assess the impacts of plans and potential alternatives for materiel acquisition, the production base, and equipment distribution programs on the projected force structure.
- Assure continuity of force structure requirements within the PPBS and PPBES.
- Provide program basis for structuring organizational, materiel, and personnel requirements and projected authorizations.

IV. The TAA process

1. TAA is the resource sensitive process that executes the decisions of the Office of the Secretary of Defense (OSD), the Department of Defense (DOD) PPBS, directives and initiatives of the Joint Staff, and the Army planning, programming, budgeting, and execution system (PPBES). The Army's strategic roles must support the NMS. These roles have a major impact on the shaping of the Army. Therefore, TAA develops a force that meets the NMS, defeats the threat, within the defined scenarios, under the established dollar constraints, and fulfills all the roles and missions listed, within the parameters of congressional oversight and guidance.

2. TAA serves as the bridge between OSD/Joint Staff guidance and the Army's planning and program building processes, balancing the Army's force structure requirements (manpower and equipment) against available and planned resources. Decisions, as a result of the TAA process,

will shape the future size and composition of the Army and are senior leadership sensitive and made in the best interest of the Army.

3. Additionally, the TAA process is the means to transition from the planning phase to the programming phase within the Army's PPBES, assisting in determining, verifying and justifying Army requirements, while assessing force capabilities. The TAA process is flexible and responsive to dynamic changes. The process involves external inputs from the President, Secretary of Defense, CJCS, Joint Staff, OSD, and Combatant Commanders' priorities (for example: anticipated threats, scenarios, end-strengths, and assumptions). The process flows from internal Army actions, decisions and guidance from the Army Secretariat, Army Staff, Combatant Commanders (for example: allocations rules, resource assumptions, warfighting capabilities, and infrastructure priorities), and MACOMs in the decision making process for both requirement and resource decisions. The end result of the TAA process is the right mix of unit models (TOEs) that make up a balanced and affordable force structure to support Joint and Army planning, programming, and budgeting at the strategic, operational and tactical levels.

4. TAA is a multi-phased force structuring process. It consists of both qualitative and quantitative analyses designed to develop the "operating and generating forces" (MTOE and TDA) necessary to sustain and support the divisional and non-divisional combat forces delineated in the DPG, IPSs, and TAP.

The purpose of TAA is to define the required support forces (combat (CBT), combat service (CS) and combat service support (CSS)), at echelons above divisions (EAD) and echelons above corps (EAC), called "operating" forces (MTOE/ITOE) and TDA, called "generating" forces, necessary to support and sustain the specified divisions and non-divisional combat forces, delineated in the DPG ("operating" forces).

Major Changes

TAA-03 calculated only the MTOE "warfighting" requirements.
TAA-05 incorporated the Base Generating Force Requirements.
TAA-07 calculated all Army requirements (MTOE/ITOE & TDA, all COMPOs).
TAA-09 incorporated Homeland Security as the first priority of the "Simultaneity Stack".

5. **Figure 3A** and **3B** depict the sequence of activities in the TAA process. **Figure 3B** provides a generic time line for TAA-11. TAA is a two-phased analytical and subjective process consisting of **Requirement Determination** (force guidance and quantitative analysis) and **Resource Determination** (qualitative analysis and leadership review).

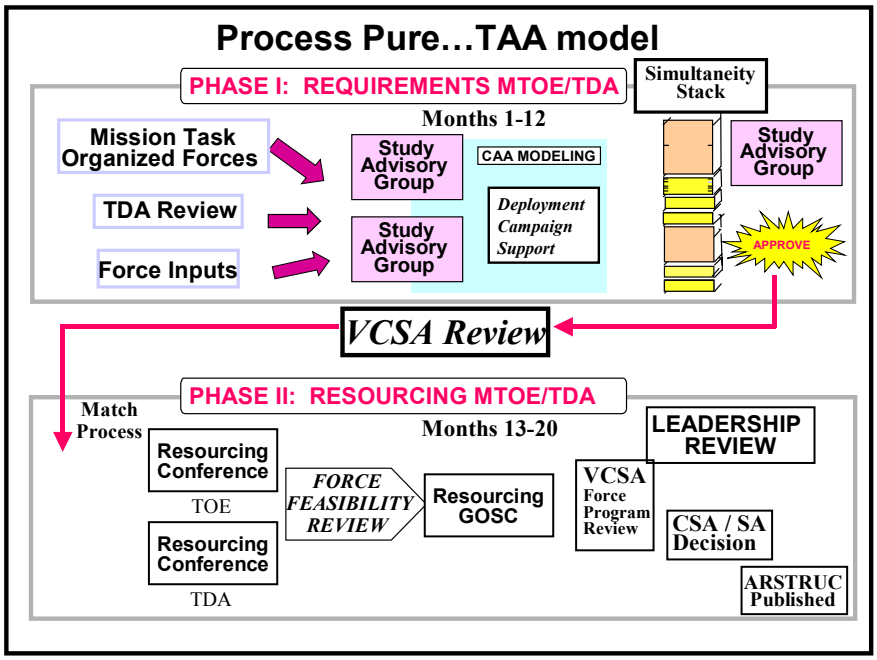


Figure 3A

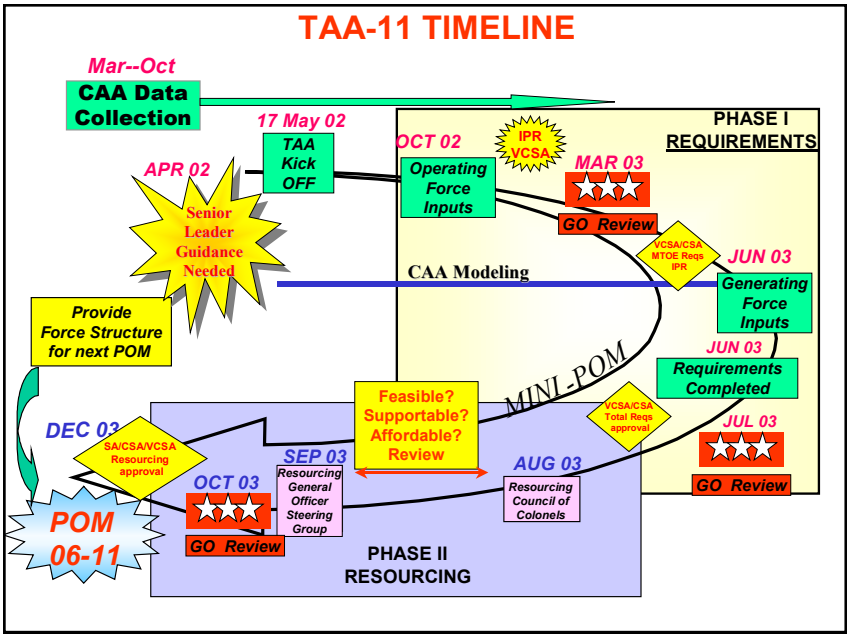


Figure 3B

TAA Highlights:

A *biennial*, *two phased* force development process.
Primarily a *force structuring process* (all Components - MTOE, ITOE & TDA).
Specifies force structure requirements for each year of the POM.
Incorporates resource / program constraints.
Is a computer-assisted process.
Has *Army-wide participation* including CSA decision and Sec Army approval.

a. Phase I of the TAA process captures the Army's combat requirements (MTOE), generates the Army's support requirements (MTOE), and develops the Army's generating force requirements (TDA). TAA develops the echelons above division/echelons above corps (EAD/EC) support forces of the "operating forces" [i.e.; combat (CBT), combat support (CS), and combat service support (CSS)], and TDA force structure, referred to as the "generating forces" (required to support both portions of the "operating force" structure).

b. Phase II of the TAA process resources the requirements based on Army leadership directives, written guidance, risk analysis, and input from the combatant commanders (day-to-day requirements). The resulting force structure (all components / MTOE & TDA) is the POM force, forwarded to the Office of the Secretary of Defense (OSD) with a recommendation for approval. When congress approves the budget, all approved units are programmed in the Structure and Manpower Allocation System (SAMAS) and documented in The Army Authorization Documentation System (TAADS).

V. TAA Phase I. Requirements Determination.

Requirements determination, the more critical of the two phases, is made up of two separate events: **force guidance and quantitative analysis**. Accurate planning, consumption and workload factors, threat data, and allocation rules ensure accurate computer developed requirements.

1. Force guidance. Force guidance consists of data inputs and guidance from various sources (**figure 4**). Guidance from the President, Congress, OSD, JCS, the ARSEC, and ARSTAF is included. Threat data, other Service data, coalition force data, and weapons effectiveness are included. Finally, previous leadership decisions and current guidance from the SA, CSA, VCSA, G-3 and G-8 are addressed. The guidance addresses objectives, threat data, and resource assumptions and priorities.

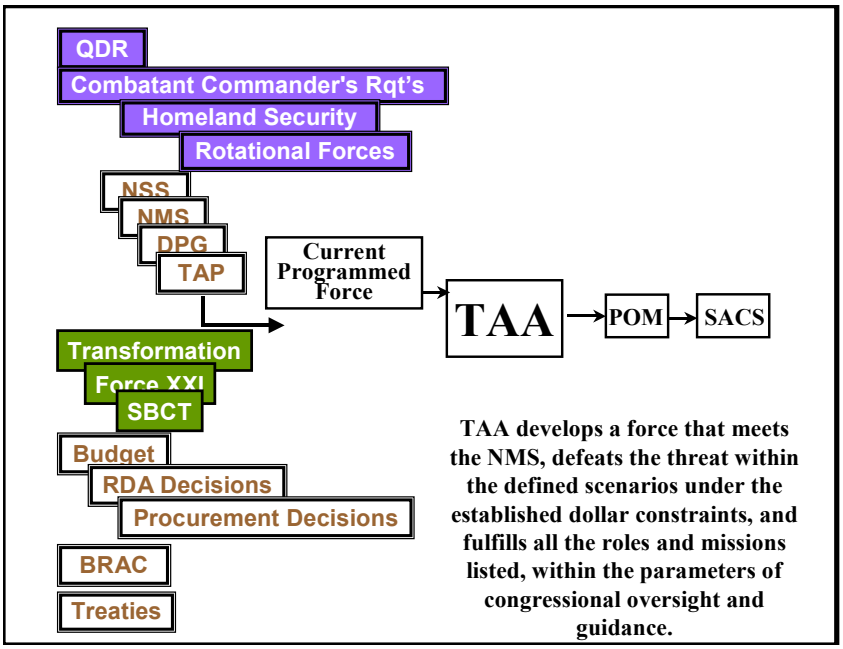


Figure 4

a. Higher's Guidance Inputs. The determination of the size and content of the Army force structure is an iterative, risk-benefit, trade-off analysis process, not all of which is

exclusively within the purview of the Army. The NMS, QDR and DPG constitute the major JCS/DOD directives and constraints imposed upon Army force structure.

1) The NMS describes the strategic environment, develops national military objectives, and describes the military capabilities required to execute the strategy. The NMS also addresses the force structure requirements for the Navy, Air Force, Marine Corps, Coast Guard, Special Operations Command and Reserve Components.

2) The Quadrennial Defense Review (QDR) report is required, by law, every four years. The report is due to Congress by the end of September in the year after a presidential election. The QDR report addresses the total force required to implement the President's national security strategy and the supporting NMS, at prudent military risk. QDR 2001 provided a capabilities based strategy and a new force planning construct.

3) The DPG provides policy, articulates strategic objectives and the national military strategy, and provides force and resource guidance to the Services, other DOD agencies, and to the combatant commanders.

a) Based on the DPG, the Services prepare their POM. For the Army, the DPG provides the strategy, force and resource guidance, and scenarios.

b) The force structure guidance identifies the DPG specified portion of the "operating forces", which constitutes the start point for force structuring activities. HQDA, G-3, SSW (War Plans) and G-3, FMF (Force Structure) determine the specific identification, size and composition of the "operating forces" in accordance with TAP force structure guidance.

c) The DPG further defines the priorities, the directed scenarios called major combat operations (MCO) and small-scale contingencies (SSC) the Army must address, and locations for planning identified in the DPG illustrative planning scenarios (IPS).

d) In the past, the DPG specified the quantity and type of combat forces (corps, divisions, separate brigades, armored cavalry regiments, range battalions, and special forces groups) for employment in each scenario.

4) In the absence of the NMS and DPG, the QDR 2001 Report provided the force structure guidance for POM (06-11). QDR 01 directed the number of divisions, armored cavalry regiments, and enhance Separate Brigades (eSBs).

5) The War Plans Division (DAMO-SSW) and the Force Management Division (DAMO-FMF) of the HQDA DCS, G-3 and the Center for Army Analysis (CAA), a Field Operating Agency of the G-8, use the DPG and IPS to prepare the combat force apportionment that drives the operating and generating force requirements for that POM cycle. The combat force apportionment dictates the maneuver force needed for the various combat operations and is vetted with the combatant commanders prior to receiving the HQDA DCS, G-3 approval.

b. Army Guidance Inputs.

1) The Army Plan (TAP), the principal Army guidance for development of the Army program objective memorandum (POM) submission, articulates the CSA and SA translation of the JCS/DOD guidance to all Services into specific direction to the ARSTAF and MACOMs for the development of the Army POM, and the initiation of the TAA process.

2) The TAP, a HQDA DCS, G-3 document, establishes the types and quantities of organic units within the DPG specified portion of the "operating forces".

3) Data and guidance inputs.

a) Mission Task Organized Force (MTOF) The NMS assigns future missions to the Services, which in turn generate future requirements. These missions, and requirements, drive the development of MTOFs, a ready structured force(s) possessing balanced capabilities adaptable for missions against one or more multi-faceted threat(s). MTOFs are linked to the NMS. These MTOF requirements are developed using a "strategy-to-task" process and captured in the Deter Aggression block of the simultaneity stack for force structure. The tasks in this process are, for the most part, based on the universal joint task list (UJTL). Other MTOFs are generated from specific combatant commander requirements, working groups and workshops and other relevant documents. DCS, G-3 War Plans (DAMO-SSW) has staff responsibility for MTOF development and recording.

b) Postures of Engagement. "Postures of Engagement" is a new term. The Army realizes that a portion of the Army is already committed (engaged force) throughout the world, executing missions generated through treaties, "State to State" agreements, or Presidential directives. Examples – rotations in the Balkans, Kuwait, and Afghanistan. The force structure deployed to a SSC in a critical region will remain in place during MCOs. The force structure requirement is captured in the Deter Aggression block of the simultaneity stack (discussed later).

c) Parameters, planning and consumption factors and assumptions.

(1) HQDA, G-4, TRADOC, U.S. Army Combined Arms Support Command (CASCOM), the theater MACOMs and other elements of the HQDA staff (G-1, G-3 and G-8) provide specific guidance, accurate and detailed consumption factors, planning factors, doctrinal requirements, unit allocation rules, weapons and munitions data and deployment assumptions. The parameters, factors and assumptions are needed to conduct the series of modeling and simulations iterations to develop and define the total logistical support requirements necessary to sustain the combat force(s) in each MCO, MTOF or SSC.

(2) The parameters, factors and assumptions contain theater-specific information concerning logistics and personnel planning, consumption and workload factors, host-nation support offsets and other planning factors crucial to theater force development. A critical step the Force Guidance development is the update and revision of the planning and consumption factors and assumptions.

d) Allocation rules. Another critical step during the force guidance development is the review and updating of support force unit allocation rules used by the U.S. Army Center for Army Analysis (CAA) during the modeling process (quantitative analysis).

(1) These allocation rules, developed by TRADOC and the functional area proponents for HQDA, G-3 approval, represent a quantitative statement of each type of CBT/CS/CSS unit's capability, mission, and doctrinal employment.

(2) Allocation Rules are machine-readable; normally an arithmetic statement that incorporates the appropriate planning factors.

AR 71-11, Total Army Analysis, 29 December 1995:
"***An allocation rule is machine readable statement of a unit's capability, mission and/or doctrinal employment. Normally, it is an arithmetic statement that incorporates the appropriate planning factors. There are three types of allocation rules:"***

- ***Manual***
- ***Existence***
- ***Workload***

(3) There are three basic types of Allocation Rules:

- Direct input (manual) rules are stand-alone requirements for a unit in a theater. Generally the maneuver force (i.e.; Divisions, ACRs, Separate Brigades, Corps Headquarters and Theater Army Headquarters.
- Existence rules that tie a requirement for one unit to another. Allocation of units based on the existence of other units, or a function of a theater's physical or organizational structure (i.e.; for one large general purpose port: 1ea Harbor Craft Company, 1ea Military Police Company, etc)
- Workload rules that tie unit requirements to a measurable logistical workload or administrative services in proportion to the volume of those services. (i.e.; 1ea DS Maintenance Company per 375 daily man-hours of automotive maintenance or 1ea POL Supply Company per 2200 tons of bulk POL consumed per day)

(4) The allocation rules are adjusted as necessary to incorporate new/modified unit TOEs, changes in scenarios, modification of assumptions, adjustment to logistical support plans, additions/deletions/modifications in doctrinal employment concepts, and changes to theater-specific planning factors. **Figure 5** is an example of an allocation rule recommending change from TAA-09 to TAA-11.

RULE	TYPE	FY 09		10466L000	STRENGTH	
		CP1	1		OFF	9
X CHANGE	EXISTENCE	CP2	11		WO	1
NEW	X WORKLOAD C2	CP3	9	WATER SUPPLY BATTALION	EN	30
2K DRIVER	WORKLOAD	CP4	0			
NO CHANGE	MANUAL	OTHER				
		TOTAL	21		TOTAL	40

TAA09	HLS	DETER	MCO	NCR	SR	TRANS	GF	TOTAL
REQ	4	0	14	0	2	0	0	20

Mission: To provide command and control of up to seven assigned/attached companies or company equivalents engaged in providing potable water support.

Capabilities: (Per Section 1 of TOE)
- Command and Control of two to six Water Units listed under Workload.
- One light wheeled vehicle mechanic to the unit providing unit maintenance.
- One cook to the unit providing food service support.
- A consolidated unit property book.

•**Assignment**: To a Corps Support Group, Petroleum Group, or COSCOM.

•**TOE BOA**: As required based on stated capabilities.

TAA-09 Rule
.199 per 10469L000
.199 per 10468L000
.100 per 10570LC00
.100 per 10570LG00
.199 per 55727L100
.199 per 55728L100

TAA-11 Rule (Change)
WEST: .199 per Co Hqs, with a rounding rule of .7

EAST: .199 10567FE00, Aug Purif & Distr Co Hqs
.199 Water Transportation Truck Company
.199 10567FA00 Co HQ, Wtr Purif/Distr Co

THIS MATCHES
10466L000
IN SAMAS

Figure 5

e) Study Advisory Groups (SAGs), attended by Army Staff (ARSTAF), support agencies, MACOM and proponent representatives, ensure all allocation rules are appropriate and approved for use in the current DPG scenarios.

4) Study Advisory Groups (SAGs). SAGs are decision forums where all the parameters, constraints, data inputs and guidance are identified and approved for inclusion in the current TAA cycle and CAA models.

a) There are two types of SAGs: council of colonels (COC) and general officer/Senior Executive Service study advisory group (GOSAG). ARSTAF, MACOMs, TRADOC schools, Army Service Component Commands, and field operating agencies (FOAs) participate in the COC forums. The senior leadership of the Army participates in the GOSAG. The COC SAG ensures all data input and guidance is appropriate and approved for use in the current DPG scenario(s). The GOSAG addresses those issues that were unresolved at the COC SAG and approves all assumptions, planning factors, allocation rules and guidance as inputs for the second part of Phase I, the CAA modeling.

b) SAGs review, recommend adjustments toand approve inputs and parameters for the modeling conducted by CAA. SAG forums are scheduled to approve the specific data inputs to the CAA computer modeling as outputs. The format and content of the SAGS are subject to change. However, the forums should approve the related items in these general categories:

(1) Deployment models. This category focuses on how we model and how we constrain the force. Inputs include the general parameters, modeling for all U.S., allied, and threat forces, and deployment assumptions; all weapons, characteristics, rates of fire, munitions available, and lethality.

(2) Combat modeling. This category focuses on how we deploy and how we fight the force. Inputs include the combat modeling, approving the priority of flow, requirements versus capabilities, and the campaign plan (warfight and support concept).

(3) Force Analysis Simulation of Theater Administrative and Logistics Support (FASTALS). This category focuses on how we support and sustain the force. This forum terminates the guidance determination when all assumptions, planning factors and guidance inputs are approved for the current TAA cycle. Inputs considered for approval are fuel, ammunition, host nation support (HNS), coalition support, stockage levels, the casualty rates, evacuation policy and the allocation rules.

c) SAG III (modeling outputs). Review and approval is gained through the final SAG forum. This SAG reviews the warfighting force structure requirements developed through the CAA modeling. It focuses on reviewing and approving the "required force" file prior to the VCSA reviewing and approving the "required force". The required force is prioritized in accordance with the guidance provided in the DPG, QDR, and TAP. The prioritization is referred to as the "Simultaneity Stack" (discussed later).

5) ***Setting the stage for quantitative analysis.*** During the early stages of Phase I, CAA makes several model runs of the Global Deployment Analysis System (GDAS) and Concepts Evaluation Model (CEM) to set the stage for the second part of Phase I, Quantitative Analysis.

2. Quantitative analysis. The total warfighting requirements are determined in this phase. CAA, through computer modeling, generates the total requirements for types of units needed to ensure success of the divisions and non-divisional organizations directed in the different

scenarios (**figure 6**). CAA uses the apportioned force provided in the OSD and Army guidance for employment in the DPG scenarios (IPS). The computer models generate resources (units or classes of supply) needed in each scenario. Based on the allocation rules and the requirements generated for units or classes of supply, CAA modeling develops the "support forces" required to ensure success of the deployed divisional and non-divisional units in the warfight, given the assumptions and guidance approved in the SAGs. The DPG directed force structure and the newly determined "support force" is known as the "operating force". The TAA process then determines the "generating force" which is predominately TDA organizations. CAA develops the generating force structure required to support the "operating force" (divisional, non-divisional (CBT) and EAD/EAC (CS/CSS) units).

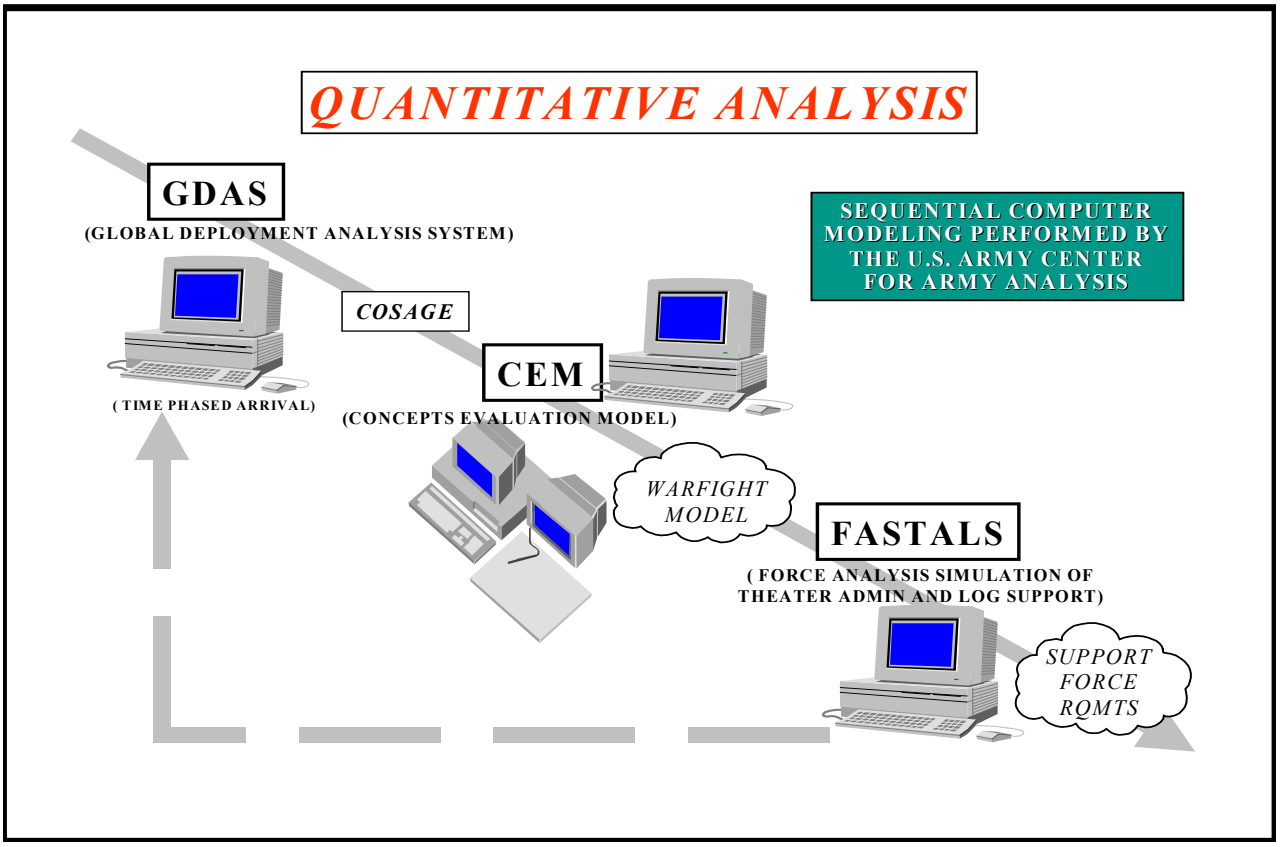


Figure 6

a. ***CAA modeling***. CAA accomplishes the modeling of TAA through a series of analytical efforts and associated computer simulations. Improved modeling, accurate consumption factors, proper allocation rules, and application of the rules develop the most accurate definition of the total force requirements to support the directed MCOs and SSCs.

1) GDAS- Global Deployment Analysis System. A strategic deployment analysis, GDAS, is accomplished for each scenario. The CAA models have as their major inputs the available strategic mobility (lift) forces, the joint force(s) requiring movement, the required mobilization and training times for RC forces, and the DPG's specified desired delivery schedule for the "operating force". The major output is the achievable mobilization station-to-port of embarkation-to-port of debarkation to tactical assembly area arrival schedule for all units (CBT/CS/CSS). This becomes one input into the theater combat operations analysis, Concept Evaluation Model (CEM).

2) CEM- Concepts Evaluation Model. A theater combat operations analysis is accomplished at both tactical and operational levels for each scenario, using the additional major inputs of friendly and enemy weapons' quantities and effectiveness data, friendly and enemy tactical and operational doctrines, projected resupply capabilities, and available joint and combined forces. Major outputs which become inputs to the theater logistical analyses, Force Analysis Simulation of Theater Administrative and Logistics Support (FASTALS), include forward line of own troops (FLOT) movement over time, personnel and equipment casualties to the "operating force", ammunition expenditures, and brigade/division combat intensities.

3) FASTALS- Force Analysis Simulation of Theater Administrative and Logistics Support. A theater logistical analysis for each scenario utilizes the outputs of CEM as inputs, along with such logistical data as in-place stocks, existing infrastructure and transportation network, available host-nation support, projected consumption rates, unit direct support (DS) and general support (GS) maintenance requirement factors, and supply, medical, and construction policies to determine time-phased personnel, replacement, medical, material, maintenance, construction, and transportation workloads. In combination with the allocation rules approved by the SAGs, these workloads generate the CS/CSS support force requirements and a time-phased required troop deployment list for that scenario (**Figure 7**).

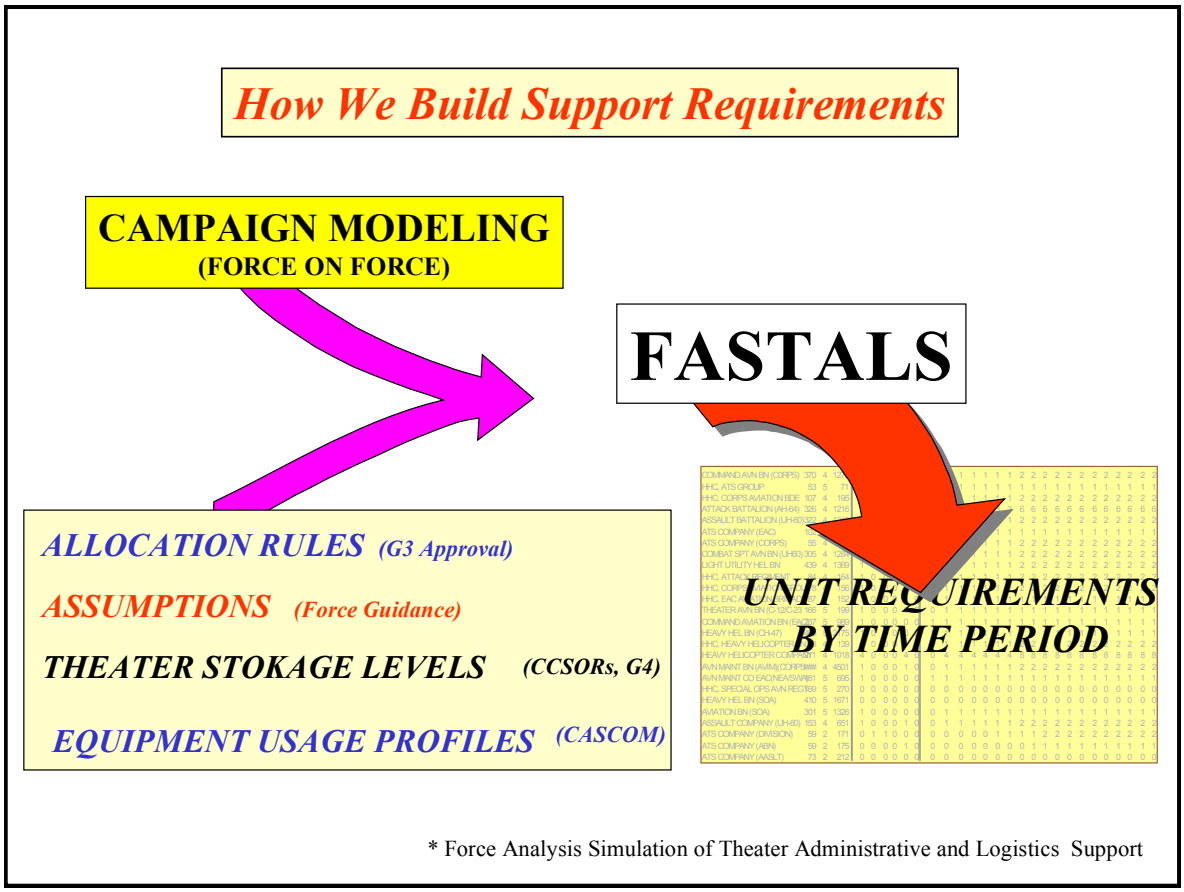


Figure 7

b. <u>Total requirements.</u> The Total Force requirements include the force requirements identified to successfully conduct the MCO(s) (MTOE/ITOE – CBT), support force structure (MTOE/ITOE—CS/CSS) generated to support the combat forces in the MCOs, (MTOE/ITOE) and the TDA generating force. Additionally, Homeland Security, Combatant Commander's day-

day- requirements, SSC – Critical Regions and SSC –Non-Critical Region force structure are addressed in the total requirements through the **"SIMULTANEITY STACK" (figure 8)**. **Figure 8** shows the linkage between the NMS and TAA 11 Simultaneity Stack.

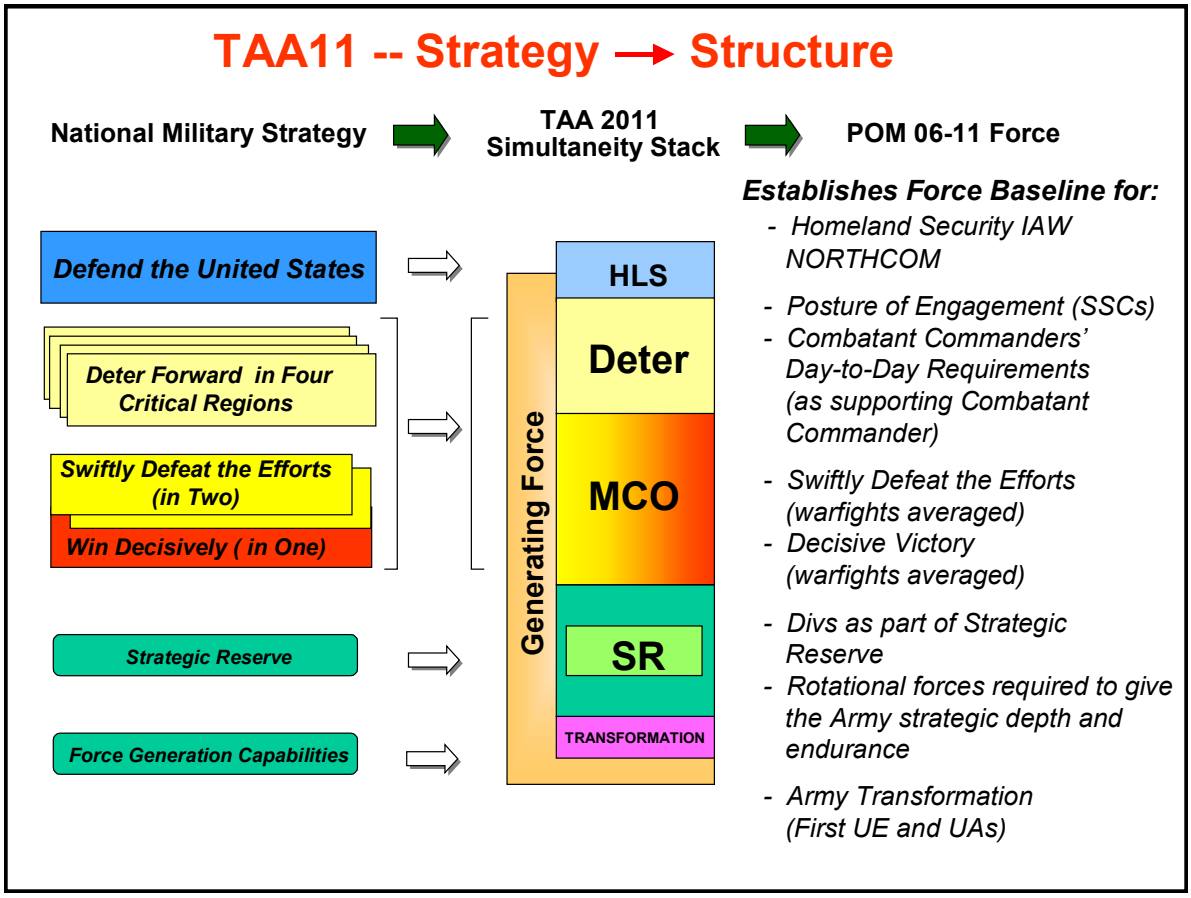


Figure 8

1) The total MTOE/ITOE and TDA requirements file include units required/generated by Homeland Security, Deter Aggression [SSC (CR)], MCO, SSC (NCR), Strategic Reserve, Transformation Campaign Plan, and Generating Force.

2) The MCO(s) produce a "Time-Phased" force that includes the "operating" forces and the "doctrinal" non-divisional support force requirements (fully structured and totally optimized – meaning ALO 1) that sustain the combat forces based on the DPG/IPS, doctrine, allocation rules and the conduct of the warfight.

3) Generating Force Structure (TDA) requirements include force structure needed to support the MCO(s), support multiple SSCs, organizations found in the Transformation Campaign Plan, and organizations supporting a variety of domestic support missions.

c. The "Simultaneity Stack". The required force is prioritized in accordance with the guidance provided in the DPG, QDR, and TAP. The prioritization is referred to as the "Simultaneity Stack". The required force determined by CAA modeling is then arrayed against the categories of the stack for planning purposes. Type units within the required force may be arrayed against multiple areas of the stack based on force match guidance (e.g. a transportation company may be aligned in the MCO as part of the warfight and also dual-matched against a HLS requirement). **Figure 9** defines the major considerations in the simultaneity stack

development. The **Simultaneity Stack** provides resourcing priorities to the TAA participants in these seven major categories:

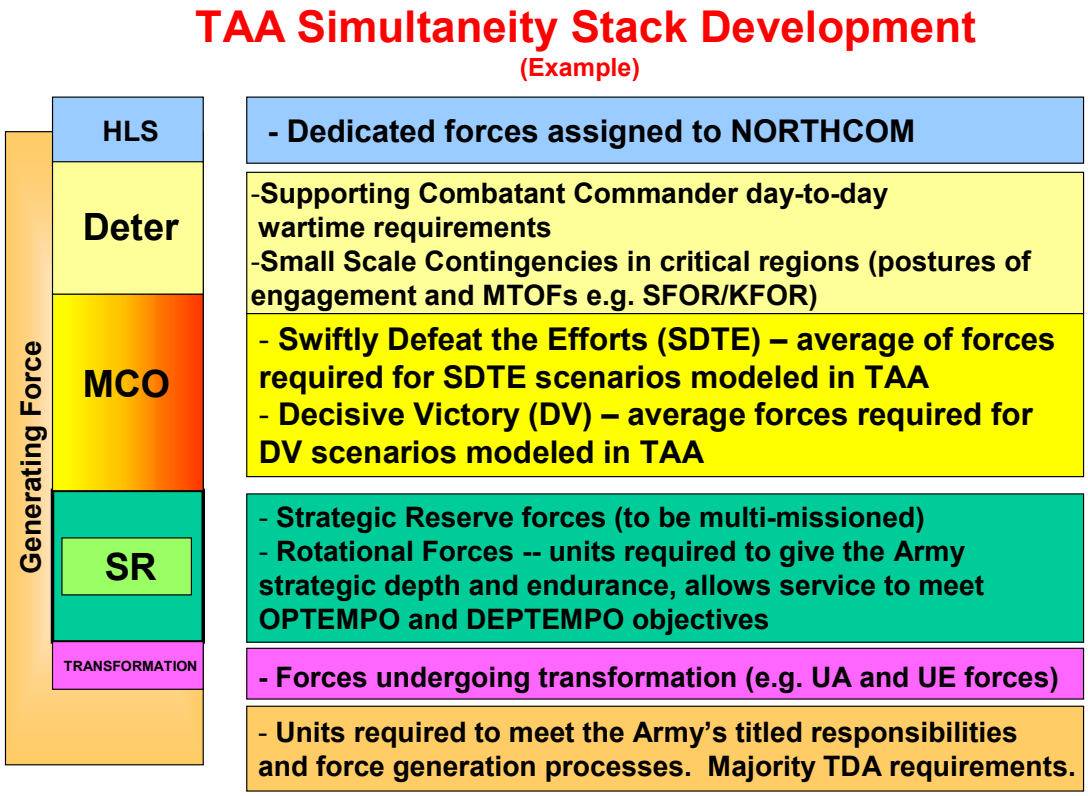


Figure 9

1) Homeland Security: The North America Commander (new Unified Command) and staff develop METL for his arena. The Homeland Security force structure requirements are developed from this METL and the missions developed by the combatant commander and staff.

2) Deter Aggression: The force structure required to deter forward in **four critical regions** and requirements generated for the combatant commanders for daily requirements. Modeling and negotiations will determine the end results.

3) MCOs: Combat, combat support and combat service support units directed, generated and verified, through CAA modeling, to successfully defeat or decisively win the MCOs. The force structure requirements are based on the scenarios, allocation rules, doctrinal employment of combat and combat support/combat service support determined by CAA.

4) SSC (NCR). Operating and generating forces developed to support the "worse case" simultaneous stacking of SSCs (Non-Critical Region) – based on the likelihood and impact on the U.S. CAA develops the force structure requirements for the SSC – NCR from the approved MTOFs. SSC (NCR) was not resourced in TAA-09, therefore not reflected in figures 7 or 8.

5) Strategic Reserve (SR): The SR is determined through risk analysis in the TAA process.

6) Transformation: Army units undergoing Transformation are not available for deployment. The force structure must be accounted for, including support force structure and generating force structure.

7) Generating Force Structure: Generating Force Structure includes the required non-combat organizations (i.e.; TRADOC, HQDA, AMC, USMA, etc) supporting the warfight (MCOs), Homeland Security, Deter Aggression (SSC), Transformation, and Strategic Reserve.

d. Review and approval. Phase I (Requirements Determination) is complete after the SAG COC and GOSAG review the CAA computer generated output (total warfighting MTOE/ITOE and TDA requirements).

1) The total warfighting requirements, portrayed by FASTALS as a fully structured and resourced force at authorized level of organization (ALO) 1, are reviewed and approved by the COC and GOSAG.

2) Additionally, the COC SAG and GOSAG review and approve the force structure requirements supporting Homeland Security, Deter Aggression, all of the SSCs, designated strategic reserve, units conducting transformation and the Generating Force. The GOSAG recommends approval of the force to the VCSA.

3) The VCSA reviews and approves the "total force requirements" generated through the computer models, which provide the doctrinally required units from CAA (provided by FASTALS), and recognized within "Simultaneity Stack". Included are Homeland Security , Deter Aggression and Army Transformation requirements. The VSCA review and approval is the transition to Phase II of TAA (Resource Determination).

4) MATCH MODEL. After the VCSA reviews and approves the total force requirements, a comparison of data files (MATCH report) is made between the VCSA approved total force requirements (CAA developed) and the current program force (Master Force (MFORCE)) (**Figure 10**).

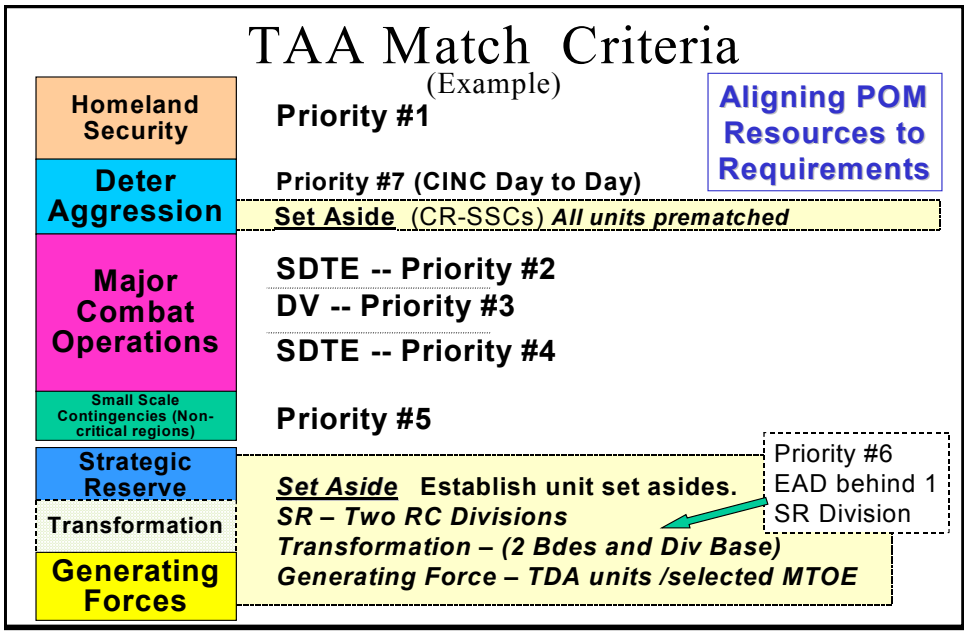


Figure 10

a) The MATCH (not an acronym) report provides the "delta" (COMPO 5) between the new requirements and the programmed force (SAMAS). The MATCH is accomplished through a computer comparison program. CAA produces the "required MTOE/ITOE and TDA"

force file by combining the troop lists of required forces for the various scenarios ("Simultaneity Stack"), in accordance with guidance provided from HQDA DCS, G-3.

b) A computer program compares the VCSA approved, doctrinally required, force file provided from CAA with a current list of on-hand and programmed units (MFORCE from SAMAS) to determine the "delta" (component (COMPO) 5) for future programming discussions and issue formulation. The MATCH report and required force files are provided to DCS, G-3 for dissemination to the MACOMs for review and issue formulation in preparation for the Resource Determination phase.

c) The MATCH is made at standard requirements code (SRC), by ALO, COMPO, and location.

VI. TAA Phase II. Resource Determination.

Resource Determination consists of two separate activities: Qualitative Analysis and Leadership Review. The qualitative analysis is the most emotional facet of the TAA process because the results impact every aspect of the Army. Therefore, this phase requires extensive preparation by participants to ensure the best warfighting force structure is developed.

1. Qualitative analysis. Qualitative analysis is conducted to develop the initial POM force, within end strength guidance, for use in the development of the POM. A series of resourcing forums, analyses, panel reviews, and conferences consider and validate the FASTALS model generated requirements and the analysis of those requirements. The qualitative analysis is conducted during the resourcing conference. The resourcing conference is held in two separate sessions: Council of Colonels (COC) and General Officer Steering Committee (GOSC).

a. ***Resourcing conference COC***.

1) The resourcing conference COC provides the initial qualitative analysis and review of the CAA developed force. The resourcing conference COC provides the opportunity for the ARSTAF, MACOMs, proponent representatives and staff support agencies to provide input, propose changes, and surface issues. *The issues focus on component (COMPO) and authorized level of organization (ALO), and center on resolving claimant versus billpayer resourcing issues, while voicing concerns about priorities versus risks.* The AC/RC mix and end-strength concerns are key recommendation outputs of this conference. It allows combatant commander representatives (Army component commanders) to verify that theater specific requirements are satisfied by Army force structure assigned/apportioned to their commands to meet current combatant commander operation plan (OPLAN)/concept plan (CONPLAN) warfighting requirements and theater day-to-day requirements.

2) HQDA action officers and their counterparts enter an intense round of preparations for the upcoming resourcing conference. Since the quantitative analysis only determined requirements for doctrinally correct, fully resourced (ALO 1) CBT/CS/CSS units deployed into the theater(s) of operations, the determination of a need for additional nondeploying units, the acceptance of risk through the reduction in ALO of units, and the allocation of resourced units to components (Active Army, U.S. Army Reserve (USAR), ARNG) must all be accomplished during the resourcing conferences. HQDA bases force structuring options on an understanding of the objectives to be achieved, the threat and the constraints. The primary differences among various options are the extent to which risk, constraints and time are forecast.

3) The resourcing conference is conducted over a 3-5 day period for the MTOE force structure and 3-5 day period for the TDA force structure. The focus is to identify and develop

potential solutions for the myriad of issues brought to TAA. The OIs and force integrators (FIs) are key individuals in this forum. The OIs and FIs have the responsibility to pull together the sometimes diverse guidance and opinions developed during the conference, add insight from a branch perspective, and establish whether the changes in the building blocks for the design case were in fact the best course of action. The OIs pull all the relevant information together for presentation to the COC over a 2-day period. During these presentations, the OI reviews each standard requirements code (SRC) that falls under his/her area of responsibility, and presents recommendations on how to solve the various issues. The FI has the responsibility to provide a macro view of issues across the functional branches. Other major players are staff officers in the G-8, G-4 and PA&E.

4) The resourcing conference COC integrates TDA issues and requirements, and reviews and resolves issues based upon sound military judgment and experience. COC submits their product to the Force Feasibility Review (FFR) process for review by the ARSTAF. The COC forwards their recommendations and unresolved issues, after the FFR process is completed, to the resourcing conference GOSC.

b. ***FFR.*** The ARSTAF conducts a Force Feasibility Review (FFR) during the resource determination phase. The ARSTAF further analyzes the force, initially approved by the COC, via the FFR. The FFR process uses the results of the TAA resourcing conference as input, conducting a review and adjusting the POM force to assure it is affordable and supportable. At the MACRO level, within the limits of personnel and budgetary constraints, the FFR determines if the POM force can be manned, trained, equipped, sustained and stationed. The FFR process identifies problems with the POM force and provides alternatives, based on prior TAA initiatives, unalterable decisions from the Army leadership, or program budget decisions (PBD), to the GOSC for determining the most capable force within constraints (**figure 11**).

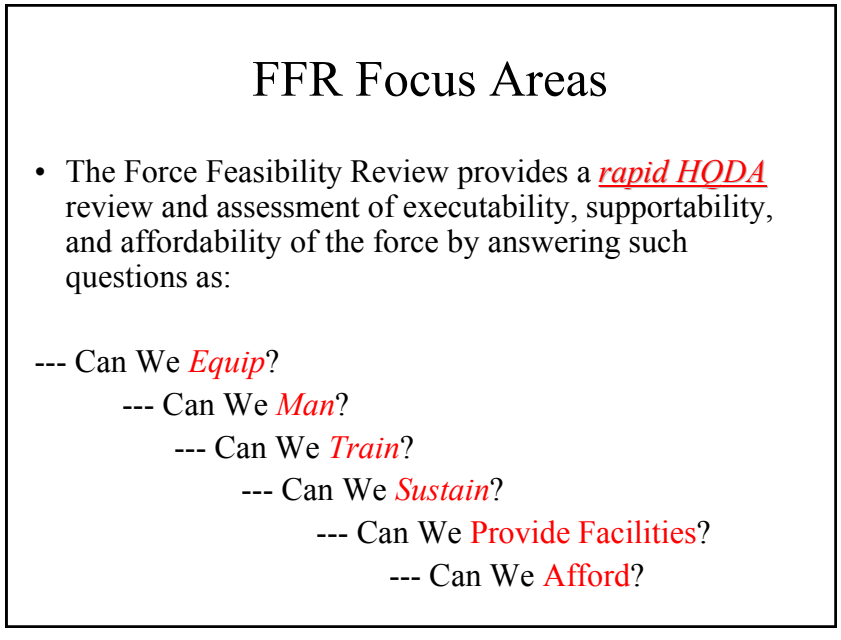


Figure 11

c. ***Resourcing conference GOSC.*** The qualitative phase culminates with the resourcing conference GOSC. The GOSC reviews/approves the decisions of the resourcing conference COC, reviews the output from the FFR process and addresses remaining unresolved issues. The resourcing conference GOSC approves the force that is forwarded to the VCSA for

review and ultimately forwarded for CSA decision and Secretary of the Army approval. **Figure 12** demonstrates an example of the TAA Force Apportionment.

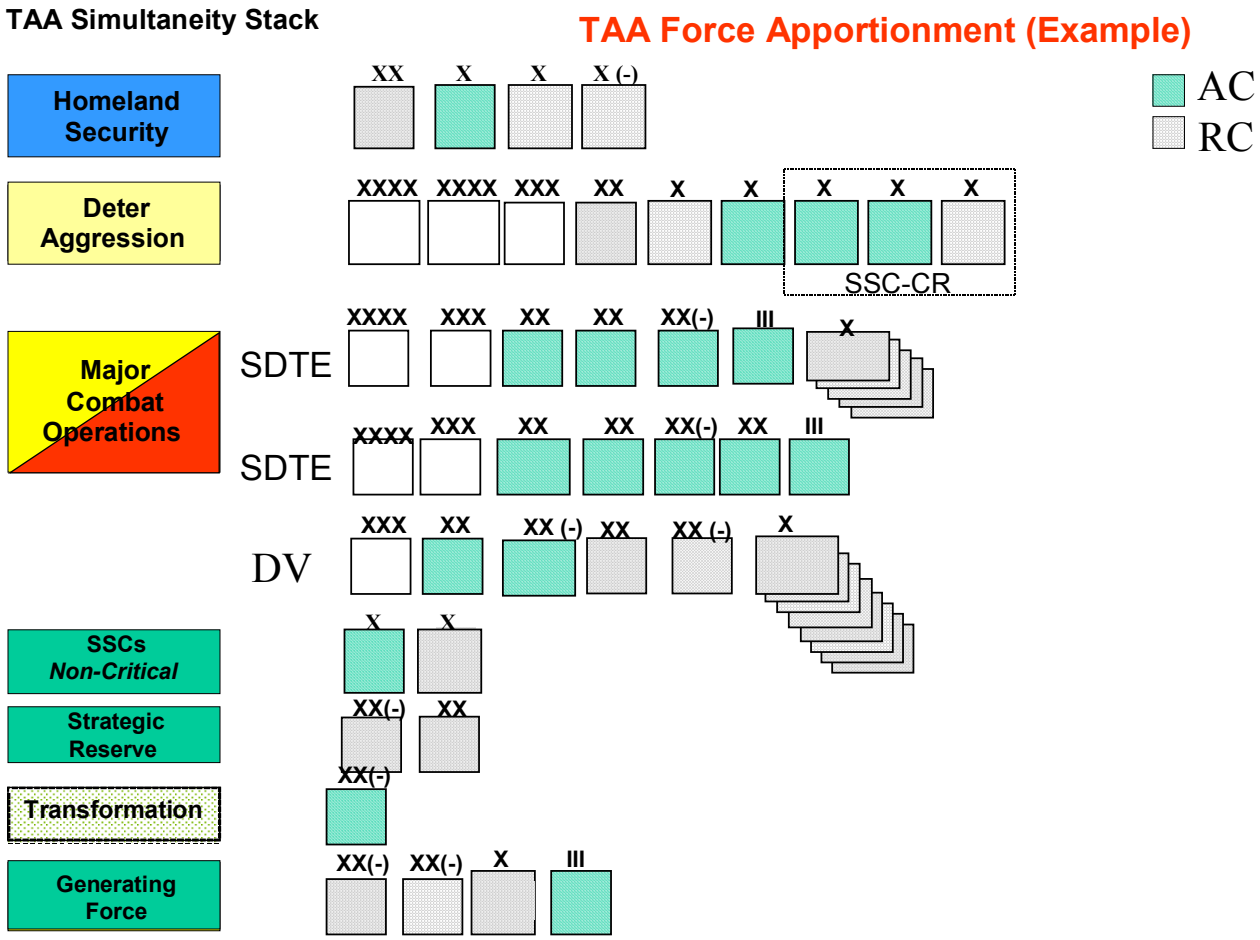


Figure 11

2. Leadership review. After the resourcing conference GOSC meets to resolve any contentious or outstanding issues, the leadership review is initiated through the force program review (FPR) process. The VCSA chairs the FPR resolving any issues forwarded from the resourcing conference forums. The VCSA scrutinizes, reviews and approves the force ultimately presented to the CSA for decision and briefed to the Secretary of the Army.

VII. Army structure (ARSTRUC) message

The ARSTRUC message provides a historical record of the Army's Senior Leadership final decisions made during the TAA process. The ARSTRUC message, produced by DCS, G-3 Force Management, is directive in nature, providing the MACOMs results at the standard requirements code (SRC) level of detail. The ARSTRUC message directs the MACOMs to make appropriate adjustments to their force structure at the unit identification code (UIC) level of detail during the next command plan. Command Plan (CPLAN) changes are recorded in the Structure and Manpower Allocation System (SAMAS), the official database of record for the

Army. SAMAS, along with the basis of issue plans (BOIP) and table of organization and equipment (TOE), provides the basis for Army authorization documentations (MTOE and TDA).

VIII. The product of TAA

The product of TAA and POM processes is the approved and funded force structure for America's Army.

1. The resourced TAA force represents the force structure for POM development, capturing all components (Active, Reserve, host nation) and TYPCOs (MTOE, TDA and AUG TDA) requirements through the end of the POM years (MFORCE). The POM force meets the projected mission requirements within anticipated end strength and equipment level. The final output should result in an executable POM Force. The Army forwards the POM force to OSD with a recommendation for approval.

2. The product of the TAA and POM processes is the approved force structure for the Army, which has been divided for resource management purposes into components: the Active Army (COMPO 1), the ARNG (COMPO 2), the USAR (COMPO 3), and unresourced units (COMPO 4). COMPO 4 units, mostly CSS units, are part of the Army's required force structure, but are deliberately unresourced so that available resources can be applied to higher priority peacetime force structure initiatives and other Army programs. Three other components — direct host-nation support (COMPO 7), indirect host-nation support (COMPO 8), and logistics civil augmentation (COMPO 9) — comprise force structure offsets. COMPO 7 and 8 are guaranteed by host-nation support agreements. COMPO 9 is an augmentation, not an offset and represents the contracts for additional support and services to be provided by domestic and foreign firms augmenting existing force structure (**Figure 13**).

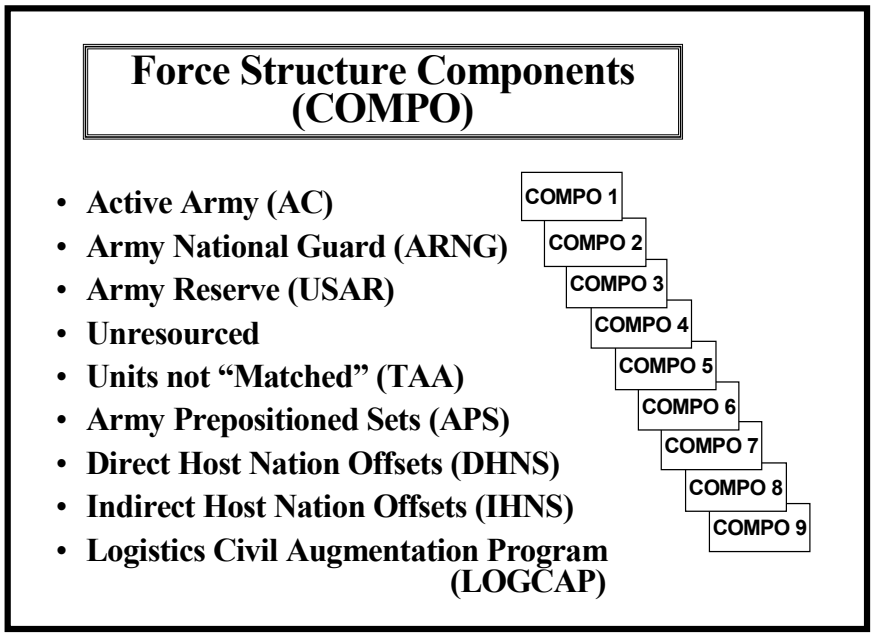
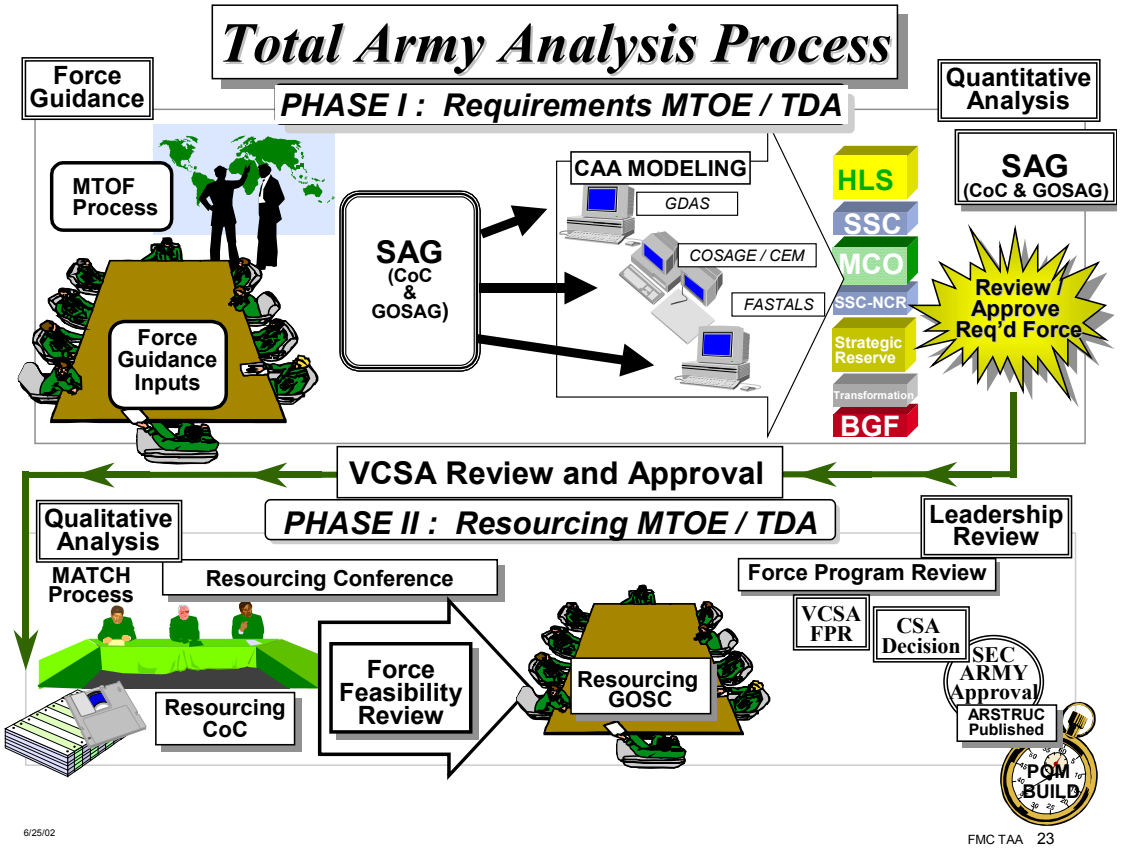


Figure 13


Total Army Analysis Process
Force Guidance
PHASE I : Requirements MTOE / TDA
Quantitative Analysis
MTOF Process
Force Guidance Inputs
SAG (CoC & GOSAG)
CAA MODELING
GDAS
COSAGE / CEM
FASTALS
HLS
SSC
MCO
SSC-NCR
Strategic Reserve
Transformation
BGF
SAG (CoC & GOSAG)
Review / Approve Req'd Force
VCSA Review and Approval
Qualitative Analysis
PHASE II : Resourcing MTOE / TDA
Leadership Review
MATCH Process
Resourcing Conference
Force Program Review
VCSA FPR
CSA Decision
SEC ARMY Approval
ARSTRUC Published
POM BUILD
Force Feasibility Review
Resourcing GOSC
Resourcing CoC
6/25/02
FMC TAA 23